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A NEW GENUS AND FIVE NEW SPECIES OF NEOTROPICAL HESPERIIDAE (LEPIDOPTERA-RHOPALOCERA)

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All of the type material of the new species of Hesperiidae described in this paper is contained in the type collection of The American Museum of Natural History and specimens of the species for which the new genus is erected are in the general collection of the Museum.

Pyrginae

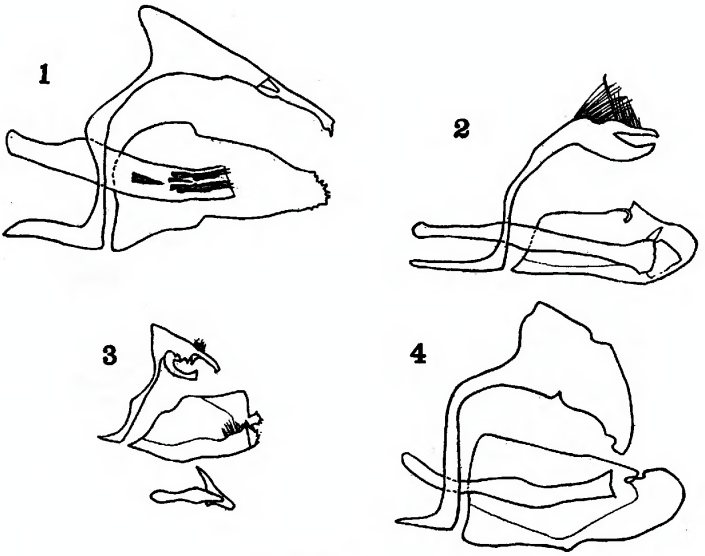
Phocides colombiana, new species

Figure 1

MALE (UPPER SIDE).—Primaries black, crossed by an oblique discal band of five spots, composed of a linear dash on the costal margin at about the middle, a subquadrate spot below it across the cell, a larger, similarly shaped spot across interspace 3, one across interspace 2, tapering a little downward, a small triangular spot below vein 2 in interspace 1; two extradiscal subquadrate spots, one each in interspaces 4 and 5; five subapical spots, placed thus: one in interspace 6 a little wider on the upper edge than on the lower, one in interspace 7 triangular, a very small linear streak in interspace 8 above the spot in interspace 7, a minute spot in each of interspaces 9 and 10, the last three spots forming a line extending backward; all of these spots are hyaline. The basal rays are pale metallic blue and heavily developed, in interspace 1 the upper of the two rays is covered with fulvous hairs for about three-quarters of the length, the inner marginal ray below vein 1 is similarly covered except the small, detached spot under the discal band of hyaline spots, which is blue, and there are scattered fulvous hairs on most of the other rays but they are not conspicuous; these rays extend about three-quarters of the distance from the base of the wing to the inner margin of the discal hyaline band, thus there is a band of the ground color between the termination of the rays and the discal band, except the ray in interspace 1 which is narrowly produced along vein 1 and reaches under the triangular spot of the discal band and the ray along the inner margin which terminates as a detached spot under the discal band. There is a submarginal band of blue spots, the three lower spots extending from vein 1 to vein 4 under the lower extradiscal spot, the rest of the band—four to five spots—curving outward around the two lower subapical spots. There is an ill-defined blue dash above the upper extradiscal spot and a very small blue dash on the costal margin outside of the hyaline dash of the discal band. The fringes are black.

Secondaries rather narrow and elongate, with a short but evident hook at the anal angle. Black, the costal area a little paler, extreme base of the wing very narrowly grayish or fulvous; proceeding from the base of the cell is a broad, tapering,

bright yellow-fulvous ray extending to or almost to the submarginal band of blue spots, along vein 3; below this and parallel to it is another similarly colored ray, beginning very narrow near the base and widening downward, a few blue scales sometimes show through the fulvous in the basal part of this ray and also in the lower part of it; another very thin, slightly paler ray lies along the edge of the abdominal fold and this ray also sometimes shows blue scales showing through the fulvous; between the broad discal ray, first mentioned, and the submarginal band of blue spots



MALE GENITALIA

Fig. 1. *Phocides colombiana*, new species. Paratype. Colombia.
Fig. 2. *Thespieus ovallei*, new species. Holotype. Colombia.
Fig. 3. *Pholisora* (?) *maculata*, new species. Paratype. Brasil.
Fig. 4. *Megathymus mejicanus*, new species. Paratype. Mexico.

is a short blue ray partly covered with fulvous hairs, this ray is well developed and extends from vein 7 to vein 4, in two specimens there is an ill-defined spot continuing this ray above vein 7. The submarginal band of blue spots begins below vein 8 and extends practically unbroken to below vein 1, curving slightly inward from vein 3 downward, most of the spots of this band have a few fulvous hairs intermixed, especially in the center of the band. Fringes alternately black and white.

BENEATH.—Primaries black but paler than above, the hyaline spots repeated. Two blue spots on the costal margin near the base of the wing and a larger blue spot across the cell near the base and extending across the base of interspace 3; a blue dash between the costal marginal hyaline spot of the discal band and the hyaline spot below it; another ill-defined blue stripe beyond it over the end of the cell and extending a little into the cell, the part in the extreme cell end becoming sordid whitish. The submarginal blue band is composed of two large blue spots, one across inter-

spaces 1 and 2 and the other across interspace 3, and above these scattered blue scales representing the remaining blue spots of the band of the upper side of the wing. The basal area of the wing, below vein 3 and along the inner margin, is much paler than the rest of the wing.

Secondaries black with three very bright blue bands, and a very narrow blue stripe along the outer margin of the abdominal fold. Where the wing joins the body it is very narrowly bluish or whitish. The first blue band begins on the costal margin close to the base of the wing and extends to just below vein 1 at about the center of that vein; the next band extends from the basal third of the costal margin to the base of vein 3 and lies about parallel to the first blue band; the third blue band is submarginal and composed of spots, it extends from vein 8 to just below vein 1 and is approximately straight, the spot between veins 3 and 4 being very slightly narrower than those on either side of it and the outer edge of this spot is but very slightly outside of the line formed by the outer edge of the other spots of the band. The abdominal fold is paler than the rest of the wing.

The thorax above is black with a long tuft of fulvous hairs, with a longitudinal black stripe through the center of them, extending from the middle of the thorax over the base of the abdomen. The tegulae are similarly colored and joining with the tuft of hairs create the appearance that the thorax is black with four long fulvous stripes. The thorax beneath is black with some pale fulvous hairs along the base of the primaries. The abdomen above is black in the center and on the sides spotted with fulvous and sometimes intermixed with pale blue scales toward the anal extremity; the under side of the abdomen is black, variably spotted with blue on the sides. The anal tuft is black in the center and fulvous on the sides. The shoulder covers are black with four fulvous spots and some bluish hairs on the margin. The collar is black with a bluish, or bluish and fulvous, spot in the center and a whitish spot on each side. The head is black with several bluish and whitish spots. The palpi are black above with a white dot; beneath white. The pectus is white in the center and black on the sides. The legs are black striped with white or bluish. The antennae are black on both sides.

EXPANSE.—56 (type) to 61 mm.

TYPE MATERIAL.—Holotype male and two male paratypes from Colombia, exact locality not known.

The form of the male genitalia is somewhat similar to that of *oreades* Hewitson to which species *colombiana* is most closely allied but from which materially differs in superficial characters. On the upper side the hyaline spots of the primaries of *colombiana* are colorless, in *oreades* they are orange-fulvous; the basal rays of *colombiana* are more heavily developed than in *oreades*, the ray below vein 1 is unbroken in *colombiana* and in *oreades* it is composed of two parts, the first being a short, oblique basal stripe. On the secondaries the submarginal band of *colombiana* is practically in a straight line, in *oreades* this band is noticeably out of alinement in the center; the short ray between the discal ray and the submarginal band of *colombiana* is much more developed than in *oreades;* the color of all of the rays is a much paler shade in *colombiana* than in

oreades. On the under side of the secondaries the spot of the submarginal band between veins 3 and 4 of *colombiana* is only very slightly out of alinement with the rest of the band, while in *oreades* this spot is noticeably out of alinement with the others and the spot below vein 8 is placed inwardly of the two following spots. In the single specimen of *oreades* at hand the spot on each side at the base of the palpi beneath is fulvous and in all of the specimens of *colombiana* these spots are white.

Phocides nigrescens, new species

MALE (UPPER SIDE).—Primaries black, with an oblique discal band of four hyaline spots, the first, small, on the costal margin; the second separated from the first, across the cell; the third across interspace 2; the fourth, triangular, nearly reaching across interspace 1; two very narrow extradiscal hyaline spots extending in an oblique line, one each in interspaces 3 and 4; four subapical hyaline spots, the lower one triangular, in interspace 5; the one above it in interspace 6, subquadrate; the next one in interspace 7 very small; the next one in interspace 8, similar to that in interspace 7 and placed a little basally. A submarginal band of blue spots broken a little inwardly at vein 3, and produced inwardly under the lower subapical spot and in scattered blue scales extending around the subapical spots to that in interspace 8. Above vein 1 the usual basal blue rays are indicated only by scattered blue scales at the base of the wings and a white dot in the base of interspace 1; below vein 1 there is a short, oblique white line at the base and a rather large blue spot extending from under the discal band of hyaline spots to under the submarginal band of blue spots and toward the base in a very thin line of blue scales along the under side of vein 1. The triangular hyaline spot of the discal band, in interspace 1 is surrounded by blue scales at its apex. Fringes dark brownish, slightly excavate between veins 1 and 3.

Secondaries black, the inner margin brownish and paler at the base; abdominal fold brownish with a line of white hairs along the inner edge; a short, narrow bluish-white ray along vein 1, narrowly joining with the lowest spot of the submarginal band; a narrow discal ray from the base of the cell extending along vein 2 and almost connected with the submarginal band; a very short, narrow extradiscal ray obliquely from the base of interspace 6 to vein 3 where it is well separated from the submarginal band; a submarginal band of blue spots in a slightly curved but otherwise continuous line from above vein 7 to below vein 1, the size of the spots tapering gradually downward. Fringes brownish black at anal angle, with a small white spot just before vein 1, white between veins 1 and 2 crossed by black in the center and a small white spot above vein 2, the rest brownish.

BENEATH.—Primaries black, brownish along inner margin to vein 2. Hyaline spots as above. Spots of the submarginal band larger. A small blue spot at the base; a short, ill-defined blue band halfway between the base and the hyaline discal band extending from the costal margin to the base of interspace 2; a blue stripe between the costal spot of the discal band and the cell spot; a few blue scales along and just above the two extradiscal hyaline spots.

Secondaries black, becoming brownish in the abdominal fold. A narrow blue stripe along the outer edge of the abdominal fold and extending in a narrow line at the

base of the fringes to vein 1. A narrow blue basal band extending from near the base at the costal margin to the middle of vein 1 and along which it is slightly extended; an oblique, very narrow discal band parallel to the basal band from the costal margin to the base of interspace 3; a submarginal band broader than on the upper side and having the spot below vein 3 slightly out of line inwardly, extending from interspace 7, which it crosses, to vein 1.

Thorax above blackish brown with a white longitudinal stripe on each side and just above the base of the secondaries with long white hairs; beneath brownish with white hairs. Tegulae white along the lower edge, black above. Abdomen above black in the center, striped with blue on the sides; beneath black with white hairs at the base. Anal tuft black at the base, white at the apex. Top of head black spotted with white. Collar and shoulder covers black with a white longitudinal line. Palpi above with a white dot; beneath white in the center and black on the sides. Pectus black in the center and white on the sides. Legs blackish, striped and barred with bluish white. Antennae black above, the apiculus brownish; beneath brownish, a few white scales at the base of the club, the club reddish brown.

EXPANSE.—50 to 52 mm.

TYPE MATERIAL.—Holotype male and one male paratype from Colombia.

This species is closely related to *metrodorus* Bell, there being but a slight difference in the termination of the claspers of the male genitalia of the two species. Superficially *nigrescens* may be distinguished from *metrodorus* by the almost total lack of the basal rays of the primaries, which are usually well developed in *metrodorus;* in the broader submarginal band of the upper side of the secondaries and the presence of the spot of this band in interspace 7 usually lacking in *metrodorus.* On the under side of the secondaries the basal and discal rays of *nigrescens* are narrow and the submarginal band broad; in *metrodorus* the rays are as broad or broader than the submarginal band. The lack of the basal rays of the primaries in *nigrescens* causes these wings to present a very black appearance.

Brigadier W. H. Evans, to whom photographs of *nigrescens* were sent, informs me that there are specimens unidentified in the collection of the British Museum from Colombia, Ecuador, and Peru and that they agree with the characters shown in the photographs.

Pholisora (?) **maculata,** new species

Figure 3

MALE (UPPER SIDE).—Primaries brown at the extreme base, then crossed by a narrow whitish band suffused with pale brown, following this a brown band somewhat curved, then a whitish discal band extending from the costal to the inner margin and suffused with pale brown in the lower part and a brown dot in each of interspaces 1 and 2, the inner side of this band is irregular and the outer side of the spots in the cell and interspace 2 is deeply indented and both of these spots are hyaline, a small hyaline spot near the base of interspace 3, two still smaller spots, one each in inter-

spaces 4 and 5, the upper in an oblique line outward with the lower one, three small, hyaline subapical spots, somewhat elongate, the upper one extending slightly outward beyond the lower ones but all in a nearly vertical line and edged with brown on the outer side, a short brown band fills the space between the pale discal band and the subapical spots, extending unbroken across the cell, below which it is divided into two spots, one each in interspaces 2 and 3, a submarginal brown band somewhat spot-like extends from the apex to the anal angle and between veins 2 and 4 is produced outward almost to the margin of the wing, then a little inward in the upper part of interspace 1 and again a little outward at the anal angle, this band and the one just previously mentioned nearly fuse between veins 2 and 6, being separated only by a narrow, indistinct paler line, a narrow, paler marginal line widest at and just below the apex and just above the anal angle in interspace 1. There is a very slight indentation in the outer margin of the wing between veins 1 and 2. Fringes pale brownish, darker at the end of the veins. There is a rather thin overscaling of fulvous brown in the basal, inner, and outer marginal areas.

Secondaries on the outer margin have a slight excavation between veins 4 and 6. Basal third brown, followed by an irregular, whitish discal band, extending from the costal margin to the inner edge of the abdominal fold, the costal spot of this band is only about one-half the width of the rest of the band, two small brown spots are enclosed in the band, one in the lower part of the cell near the apex, the other, longer vertically, below it in interspace 1, beyond the discal band to almost the margin of the wing is brown spotted with darker brown, the margin of the wing narrowly paler. Fringes alternately dark and pale brown. There is a thin overscaling of fulvous brown and some fulvous-brown hairs at the base and along the abdominal fold.

BENEATH.—Primaries about the same as above but paler, inner margin whitish. Secondaries paler than above, the whitish discal band broader and outwardly enclosing an irregular band of six brown spots, followed by an irregular band of larger brown spots and a narrow, irregular, whitish marginal line.

Thorax above brown, beneath paler brown. Abdomen above dark brown at the base, the rest pale brownish. Top of head, palpi, collar, shoulder covers, and tegulae pale brownish. Palpi beneath whitish tinged with pale brown. Pectus whitish. Antennae above brown, the club a little darker, beneath paler brown, the apical half of the shaft and the club whitish, the sides of the club red.

FEMALE.—Similar to the male but much darker brown, the pale areas much reduced on both surfaces of the wing.

EXPANSE.—Male 24 to 27 mm.; female 27 mm.

TYPE MATERIAL.—Holotype male, allotype female, one male and one female paratypes from Chapada, Campo, Brasil.

Maculata is tentatively placed in the genus *Pholisora* as it seems to be more closely allied to this group than to any of the other described genera, but it is probably not strictly congeneric. The male has neither a costal fold nor a tibial tuft. The distinctive form of the maculation as described above will readily separate *maculata* from any of the other described members of this genus as it does not closely resemble any of them.

Hesperiinae

SCHAUSANA, NEW GENUS

GENOTYPE.—*Hesperia* (?) *altama* Schaus.

Apex of primaries somewhat pointed, secondaries rounded, slightly lobed at the anal angle. Antennae about half the length of the costa, the club stout, gradually thickened, apiculus moderately long or a little more than the diameter of the club. Third joint of the palpi conical and moderately short. Cell of primaries a little more than half the length of the wing. Body stout. Middle and hind tibiae with short spines; hind tibiae with one pair of long spurs. Male stigma is a sub-ovate patch of black scales in interspace 2, beginning at or just before, the rise of vein 3 and extending outward, the upper edge lying against vein 3 and the lower edge a little above vein 2.

This genus is named for Dr. William Schaus who described *altama*. In the original description *altama* was questionably placed in the genus *Hesperia*, used in a blanket sense, and Draudt, in 'Seitz Macrolepidoptera of the World,' placed in the genus *Lerema*. *Altama* does not agree with the characters of any of the genera now in use and it is therefore necessary to erect a genus for it. In general appearance the genus *Atrytone* Scudder is suggested and the probable relationship of *Schausana* is somewhere near that genus, from which it is immediately distinguished by the single pair of spurs on the hind tibiae and the unique form of the male stigma.

Thespieus ovallei, new species

Figure 2

MALE (UPPER SIDE).—Primaries reddish brown. A small spot in the upper part of the cell, a little beyond the center; an oblique discal band of three spots, one very small in interspace 1 just above vein 1, one taller than broad and wider on the lower edge than on the upper, in interspace 2; a small, subquadrate one in interspace 3; two extradiscal spots, one each in interspaces 4 and 5, the lower spot much the larger, the upper spot being a mere dot; three subapical spots, one each in interspaces 6, 7, and 8, in a nearly vertical line, the lower spot in the base of interspace 6 very minute. All of these spots are hyaline and colorless except that in interspace 1 which is opaque. The stigma is grayish white and in two parts in the usual form found in this genus. The fringes are orange-yellow just above the anal angle and brown from there to the apex of the wing.

Secondaries of same color as the primaries and immaculate. Fringes orange, slightly impinged upon by the ground color at the end of the veins.

BENEATH.—Primaries above vein 2 brownish red with an irregular submarginal band of whitish overscaling from the apex to vein 2, below the apex small marginal spots of ground color between the veins cut this band into lunules, one in each interspace; the wing below vein 2 to the inner margin is paler brown. The spots of the upper side are repeated, that in interspace 1 much larger, whitish, and produced in a thin line outward along vein 1 to the anal angle, above this spot in the same interspace is a narrow, oblique, pale yellowish stripe extending to the lower outer angle of

the hyaline spot in interspace 2; directly above the subapical spots is a narrow, whitish, costal stripe, another similar one behind it toward the base of the wing and another halfway between the first one mentioned and the apex of the wing. There is a fine, broken, yellowish, marginal line from below the apex to the anal angle. The stigma of the upper side is outlined by two narrow, hazy, yellowish stripes. The fringes are concolorous and less orange-yellow above the anal angle.

Secondaries brownish red, brown along the inner margin of the abdominal fold; basal third rather thinly and irregularly overscaled with whitish; an ill-defined stripe of whitish overscaling from vein 6 to the inner edge of the abdominal fold; a rather broad submarginal area of whitish overscaling from near vein 7 to vein 3. Fringes orange, darker than above. A marginal line, prominent and yellow at and just above the anal angle, from there upward thinner and whitish.

Thorax above and tegulae brownish red in the center with green reflections, green along the sides, and in certain angles all appears to be green. Abdomen above blackish with green hairs at the base; anal tuft orange. Head above, collar and shoulder covers brownish red with green reflections.

Thorax beneath with brownish and reddish-brown hairs; abdomen brown. Palpi beneath reddish brown in the center, the sides grayish. Antennae brown above, paler beneath where the club is bright yellow with a red apiculus.

EXPANSE.—45 mm.

TYPE MATERIAL.—Holotype male, Colombia.

Ovallei is closely related to *tihoneta* Weeks (*superior* Draudt) from Bolivia but may be readily distinguished from that species by the more pronounced reddish-brown ground color of the upper side of the wings, the smaller hyaline spots of the primaries, the lack of the yellowish-brown hairs covering the basal area of the upper side of both wings, the lack of hyaline spots on the secondaries.

This species is named for Señor Felipe Ovalle.

MEGATHYMIDAE

Megathymus mejicanus, new species

Figures 4, 5, 6

MALE (UPPER SIDE).—Primaries brownish black, base of wing reddish fulvous for about one-third of interspace 1, sometimes extending into the extreme base of interspace 2, and along inner margin of the wing to a point under the discal band of spots; a spot near the end of and extending across the cell, the outer edge angular, forming a more or less sharp point, the inner edge indented; a discal band composed of three spots, one in interspace 1, sagittate, extending well inward toward the base of the wing in a long sharp point, the outer edge of this spot is a little inward of the line formed by the outer edges of the two spots above it and is deeply indented, a spot in interspace 2, oblong, nearly straight on the outer edge but sometimes a little indented and angled to a point on the inner edge, an oblong spot in interspace 3 directly above the one in interspace 2 and of approximately the same length; a smaller extradiscal spot in interspace 4 and one in interspace 5 irregular in shape, a little longer than wide; four subapical spots, one each in interspaces 6, 7, 8, and 9, that of inter-

space 6 extends a little outward of those above it, that of interspace 9 is minute. All of these spots are yellow and covered with fulvous scales so that the exact present appearance of color depends upon how many of the fulvous scales have become lost. Fringes alternately brown and whitish.

Secondaries brownish black, basal third covered with fulvous hairs; a sharply angled discal band of five fulvous spots, the three lower ones are very large and form an almost continuous band from the upper edge of vein 6 below the outer angle to vein 1 above the anal angle, the first, and lowest spot, and the third spot are elongate and extend outward toward the margin of the wing far beyond the middle spot, the other two upper spots are very much smaller and are in interspaces 6 and 7, they extend inwardly in a line forming an angle with the line of the three lower spots. Fringes alternately brown and whitish.

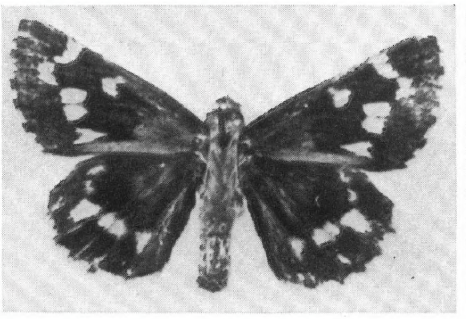


Fig. 5

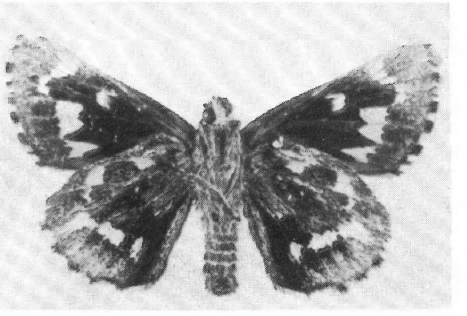


Fig. 6

Fig. 5. *Megathymus mejicanus*, new species. Upper side. Holotype.
Fig. 6. *Megathymus mejicanus*, new species. Under side. Holotype.

BENEATH.—Primaries dark brown, basal, apical, and inner marginal areas paler. Spots of the upper side repeated paler in color.

Secondaries of ground color brown, the discal area overscaled with paler brown, black and grayish scales producing a mottled appearance, the inner and outer margins and along the outer margin of the abdominal fold overscaled with white; at the base of the wing below the cell are some longer brownish hairs; the spots of the discal band are repeated and all are white, the uppermost spot is much larger than on the upper surface; in addition to these spots there is a minute white spot in the end of the cell and another much larger white spot above it in interspace 7.

Thorax above covered with long fulvous hairs. Beneath gray. Tegulae with brown and gray hairs. Abdomen above and beneath brown, each segment finely bordered with gray, extending completely around the body, some fulvous hairs at the base on the upper side. Top of head, collar, and shoulder covers brown and gray. Palpi beneath whitish tinged with pale fulvous brown. Pectus gray. Legs brown with grayish hairs. Antennae brown above, beneath with some whitish scales and a white stripe on the club.

FEMALE.—Similar to the male, all spots of both wings a little larger and the small white cell spot of the under side of the secondaries shows faintly on the upper side as a fulvous spot.

EXPANSE.—Male 46 to 48 mm.; female 51 mm.

TYPE MATERIAL.—Holotype male, allotype female, three male paratypes. The males from Guanacevi, Durango, Mexico (October), and the female from Rio Campo, Mexico.

In superficial appearance *mejicanus* most closely approaches *neumoegeni* Edwards and *aryxna* Dyar. From both of these species *mejicanus* differs on the upper side in the spot in the cell of the primaries being angled to a point toward the apex of the cell and indented on the side toward the base of the cell, this spot being more or less quadrate in the other two species though sometimes a little indented on the basal side in *aryxna; mejicanus* differs in the sagittate lowest spot of the discal band of the primaries and in this spot being out of line with the two spots above it, in the other two species this spot is subquadrate and in a line with the others; in *mejicanus* the fulvous basal area of the primaries in interspace 1 is continuous, in both of the other species it is somewhat divided and the outer part appears as a distinct fulvous spot. On the secondaries above the discal band of *mejicanus* is composed of five spots, three large ones in the lower part, of which the first and third are much larger than the second, and two small ones in the upper part, while in both of the other species this band is composed of four spots in the lower part and one in the upper part, the four lower spots, while tapering a little, are approximately in a straight line on their outer edge. On the under side of the secondaries the spots of the discal band of *mejicanus* are white, in the other two species these spots are variably overscaled with grayish white, sometimes very heavily so, except the spots in interspace 7, and the entire undersurface of these wings is overscaled with this color, usually heavily and evenly in *neumoegeni* and less so in *aryxna;* in *mejicanus* the palpi beneath are whitish tinged with pale fulvous brown, in the other two species they are white with only a few pale brownish hairs intermixed. The female allotype *mejicanus* differs from *neumoegeni* and *aryxna* females in the same way that the males differ and in addition the spot in interspace 3 of the discal band of the primaries is well separated from the cell spot, in both of the other species these two spots are usually joined and when separated the intervening space is usually narrow.

The form of the male genitalia of *mejicanus* is very different from that of both *neumoegeni* and *aryxna*, especially so in the claspers, which in these two species are apically divided into an upper and lower flange, the lower having a large preapical, dorsal projection carrying a number of short but well-developed teeth, whereas in *mejicanus* the claspers are

not apically divided but terminate in a rounded apex somewhat flattened on top, behind which there is a small excavation and the dorsal edge produced in a short flange over it.

Figure 4 is from the genitalia of a male paratype; figures 5 and 6 are the upper and under side of the male holotype, from photographs made by Mr. Cyril F. dos Passos.